

DETAILED ACTION

1. Claims 1-2 and 6-7 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claim 4, directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, **claim 4** hereby rejoined and fully examined for patentability under 37 CFR 1.104.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

This application is in condition for allowance except for the presence of non-elected claims 3 and 5 (see the previous office action mailed on 11/17/08). Accordingly, claims 3 and 5 have been cancelled.

3. The application has been amended as follows:

IN THE CLAIMS:

Claims 3 and 5 are canceled.

In claim 4, lines 1-2, right after "to any of" deletes "**Claims 1 through 3**" inserts
- **-Claim 1 or Claim 2-** -

Authorization for this examiner's amendment was given in a telephone interview with Mr. Smith, John on 08/03/09.

Reasons for Allowance

4. Claims 1-2, 4 and 6-7 are allowed.

5. The following is an examiner's statement of reasons for allowance:

The prior art of record neither anticipates nor renders obvious all the limitations in the base claim 1. Specifically, the combination of a back-illuminated semiconductor device comprising: a semiconductor substrate, having: a photodetecting unit formed on one surface, a recess, opposing the photodetecting unit, of another surface, an outer edge surrounding the recess; a wiring substrate, disposed to oppose the one surface side of the semiconductor substrate and having second electrodes connected via conductive bumps to the first electrodes; and a resin, filling a gap between the wiring substrate and the outer edge with the conductive bumps; wherein the wiring substrate has a first region and second regions, the first region surrounding a region opposing the recess and the second regions extending outward from the first region, wherein the first region and the second regions have lower wettability with respect to the resin than the other regions of the wiring substrate, and the resin surrounds the periphery of the gap

between the recess and the wiring substrate except at the second regions that are portions of the periphery, thereby spaces not filled with the resin are formed above the second regions positioned between the semiconductor substrate and the wiring substrate.

The dependent claims being further limiting and definite are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Doan whose telephone number is (571) 272-1704. The examiner can normally be reached on Monday, Tuesday and Thursday from 7:00AM - 3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WAEL FAHMY can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/Theresa T. Doan/
Primary Examiner, Art Unit 2814*